

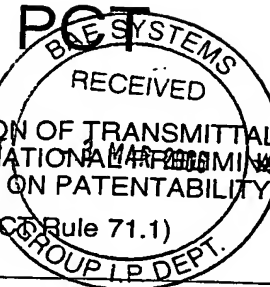
# PATENT COOPERATION TREATY

*Ref  
11/03/06*

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

To:

BAE SYSTEMS plc  
GROUP IP DEPARTMENT  
Lancaster House, P.O. Box 87  
Farnborough Aerospace Centre  
Farnborough, Hampshire, GU14 6YU  
GRANDE BRETAGNE



NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY  
(PCT Rule 71.1)

Date of mailing  
(day/month/year)

02.03.2006

Applicant's or agent's file reference  
XA1761

## IMPORTANT NOTIFICATION

International application No.  
PCT/GB2005/050022

International filing date (day/month/year)  
25.02.2005

Priority date (day/month/year)  
01.03.2004

Applicant  
BAE SYSTEMS PLC et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary report on patentability and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

### 4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

The applicant's attention is drawn to Article 33(5), which provides that the criteria of novelty, inventive step and industrial applicability described in Article 33(2) to (4) merely serve the purposes of international preliminary examination and that "any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed inventions is patentable or not" (see also Article 27(5)). Such additional criteria may relate, for example, to exemptions from patentability, requirements for enabling disclosure, clarity and support for the claims.

Name and mailing address of the international  
preliminary examining authority:



European Patent Office - P.B. 5818 Patentlaan 2  
NL-2280 HV Rijswijk - Pays Bas  
Tel. +31 70 340 - 2040 Tx: 31 651 epo nl  
Fax: +31 70 340 - 3016


Authorized Officer

Van Deursen, T

Tel. +31 70 340-3478



**PATENT COOPERATION TREATY**  
**PCT**  
**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**  
(Chapter II of the Patent Cooperation Treaty)  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>XA1761</b>		<b>FOR FURTHER ACTION</b>		See Form PCT/PEA/416
International application No. <b>PCT/GB2005/050022</b>		International filing date (day/month/year) <b>25.02.2005</b>	Priority date (day/month/year) <b>01.03.2004</b>	
International Patent Classification (IPC) or national classification and IPC <b>H04L12/64</b>				
Applicant <b>BAE SYSTEMS PLC et al.</b>				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p style="margin-left: 20px;">a. <input checked="" type="checkbox"/> <i>sent to the applicant and to the International Bureau</i> a total of 2 sheets, as follows:</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p style="margin-left: 20px;">b. <input type="checkbox"/> <i>(sent to the International Bureau only)</i> a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand  <b>12.12.2005</b>		Date of completion of this report  <b>02.03.2006</b>		
Name and mailing address of the international preliminary examining authority:   <b>European Patent Office - P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk - Pays Bas Tel. +31 70 340 - 2040 Tx: 31 651 epo nl Fax: +31 70 340 - 3016</b>		Authorized Officer  <b>Todorut, C</b>  Telephone No. +31 70 340-2802		



**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/GB2005/050022

**Box No. I Basis of the report**

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

**Description, Pages**

2-10 as originally filed  
1, 1a received on 12.12.2005 with letter of 05.12.2005

**Claims, Numbers**

1-10 as originally filed

**Drawings, Sheets**

1/3-3/3 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/GB2005/050022

---

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

---

**1. Statement**

Novelty (N)	Yes: Claims	2-10
	No: Claims	1
Inventive step (IS)	Yes: Claims	2-10
	No: Claims	1
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

**2. Citations and explanations (Rule 70.7):**

**see separate sheet**

Re Item V.

- 1 Reference is made to the following documents:

D1 : SZABÓ I: "Performance Evaluation of a New End-to-end Measurement Based Call Admission Control Scheme for Supporting IP Telephony "PROCEEDINGS OF THE SYMPOSIUM OF PERFORMANCE EVALUATION OF COMPUTER AND TELECOMMUNICATION SYSTEMS, XX, XX, 15 July 2001 (2001-07-15), pages 498-505, XP009020891

D2 : EP 0 932 282 A (NORTEL NETWORKS CORP) 28 July 1999 (1999-07-28)

- 2 INDEPENDENT CLAIM 1

The present communication takes into account all the arguments provided by the Applicant in the letter of response dated 5.12.2005.

- 2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Document D1 discloses (the references in parentheses applying to this document):

A method of call admission control for a continuous stream of data in packet switched networks including at least two local area networks communicating to one another across a connecting network (abstract, figure 2, page 499, left-hand column, lines 34-38), the method comprising the steps of:

- a) transmitting a burst of trial data from a first node in a first local area network through the connecting network to a second node in a second local area network (page 499, figure 1, right-hand column, lines 14-21);
- b) reflecting the burst of trial data received at the second node back to the first node (page 499, figure 1, right-hand column, lines 25-27) ;
- c) receiving the reflected burst of trial data at the first node through the connecting

network (page 499, figure 1, page 500, left-hand column, lines 14-17); and

d) comparing the reflected burst of trial data to the transmitted burst of trial data to determine whether transmission of a continuous stream of data can be initiated from the first node in the first local area network to the second node in the second local area network (page 500, left-hand column, lines 1-12, figure 2) .

**3 DEPENDENT CLAIMS 2-10**

The combination of the features of dependent claims 2-10 are neither known from, nor rendered obvious by, the available prior art.

- 4 The objection concerning the two-part form of independent claim 1 raised in the previous communication was dropped based on the arguments provided by the Applicant in the letter of response dated 5.12.2005.
- 5 The requirements of Rule 5.1(a)(ii) PCT are fulfilled while the relevant background art D1 and D2 was acknowledged by the applicant in the amended page 1 and 1a submitted with the letter of response dated 5.12.2005.

12 12 2005

(61)

- 1 -

## IMPROVEMENTS IN OR RELATING TO CALL CONTROL

The present invention relates to improvements in or relating to call control and is more particularly, although not exclusively, concerned with call admission.

5 In traditional telephony, that is, circuit switched telephony, for a call to be established between two remote telephones, that is, telephones connected to different local exchanges, signalling is used to establish a path prior to establishing the call itself. The path in the above example comprises initiating telephone to its local exchange, initiating local exchange to trunk connection,  
10 trunk connection to receiving local exchange, and receiving local exchange to receiving telephone. Here, the signalling and the call usually take the same path and there is full control of the path through each element in the path. As there is full control, it is relatively straightforward to determine whether a call between two telephones can be established or not.

15 In conventional internet protocol (P) telephony, the local exchanges are replaced by local 'gatekeepers' which communicate with one or more trunk gatekeepers to establish the path between the initiating telephone and the receiving telephone. Here, signalling is effected through the trunk gatekeeper(s) but the call does not take the same path. In this case, the trunk  
20 gatekeeper(s) control the bandwidth which can be used in establishing the call, and if the bandwidth is not sufficient, the call is not established.

With the advent of opaque trunk IP telephony, there is no gatekeeper in the IP network which forms the "trunk". As a result, there is effectively no control over being able to establish a call successfully. Here, the initiating  
25 telephone cannot be certain that a call, once established, will be successfully completed.

One known document, "Performance Evaluation of a New End-to-end Measurement Based Call Admission Control Scheme for Supporting IP  
30 Telephony" in PROCEEDINGS OF THE SYMPOSIUM OF PERFORMANCE EVALUATION OF COMPUTER AND TELECOMMUNICATION SYSTEMS, XX, XX, 15 July 2001 pages 498-505, XP009020891, discloses a receiving

- 1a -

gateway, positioned within a network, that is able to identify the gateway from which each frame/packet was sent and to which call each frame/packet belongs. The gateway checks each frame's sequence number to calculate  
5 whether any previous packets or frames have been lost, updating a packet loss counter accordingly. At the end of each predetermined measurement period, a control packet is sent to each sending gateway to inform the senders about the loss statistics of their calls. From the statistics reported to the receiving  
10 gateway in the control packet(s), the sending gateway can determine whether to reject or accept any new calls to a destination.

Another known document, European Patent Application No. EP 0 932 282 A, discloses an admission control apparatus having a connection request queue. All new connection requests are stored in this connection request queue, which operates on a first-in first-out basis unless admission control is  
15 invoked. The admission control detects any packet resends due to packet loss or discard. The admission control derives a pattern of these packet losses or discards, called a packet loss characteristic, to identify any patterns. If certain criteria are met, or the packet loss characteristic matches of pre-determined pattern, admission control is invoked and any new connection requests in the  
20 queue will be delayed or discarded, or existing connections will be discarded, until the condition clears.